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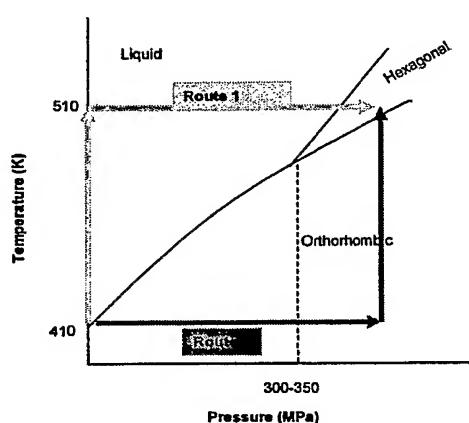
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(54) Title: HIGHLY CRYSTALLINE CROSS-LINKED OXIDATION-RESISTANT POLYETHYLENE



(57) **Abstract:** The present invention relates to methods for making highly crystalline cross-linked polymeric material, for example, highly crystalline cross-linked ultra-high molecular weight polyethylene (UHMWPE). The invention also provides methods of making antioxidant-doped highly crystalline cross-linked polymeric material using high pressure and high temperature crystallization processes, medical implants made thereof, and materials used therein.